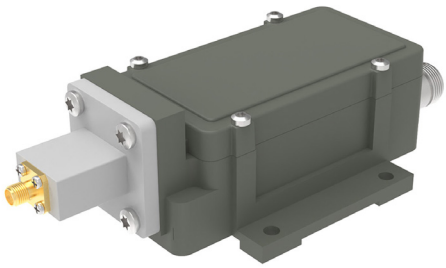
Ku BDC 10.70-12.75 GHz 1 Band Wideband

Key features



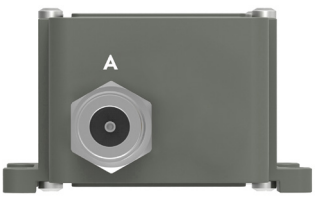
- Full Ku-Band 10.70-12.75 GHz coverage with 1 LO and 1 output
- Standard Ultra Low Phase Noise to meet all profiles of DVB-S2X
- Choose between Internal Ref. or External 10 MHz ref. models
- Wide operating temperature range
- High P1dB and IP3
- Models with gain by request 10 to 60 dB
- Optional Low profile to fit 1U

Description

The Wideband output BDC supports reception of full Ku-Band with 1 LO and 1 Extended IF Output 950-3000 MHz, 950-2750 MHz or 290 - 2340 MHz (ASTRA Wideband specification).

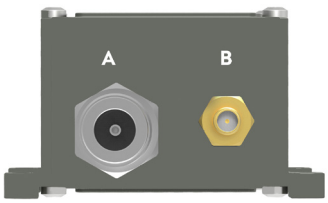
The Ultra Low Phase Noise “ULPN” is recommended* for:
DVB-S2: - Narrowband 8PSK 8/9 and 9/10 FEC
- 16 APSK or higher modulation type (any bandwidth)
- All applications with “Pilot Off”
DVB-S2X: All “MODCODS” and symbol rates
NS3/NS4: All “MODCODS” and symbol rates
* Please note that these are general recommendations and that all other system components also will influence system performance.

BDC connector standard



Connector A (standard)
Type: N-female, (option F-female or SMA-female)
Functions: L-Band out, DC in, External 10 MHz in

BDC connector optional



Connector B (optional)
Type: SMA-female
Functions: External DC or Ext. 10 MHz ref. input.

Explore our full product range in this category

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Technical specifications

	MODEL/LO	9.75 GHz Wideband	10.00 GHz Wideband	10.41 GHz Wideband
INPUT	Freq. range (GHz)	10.70 to 12.75 GHz	10.95 to 12.75 GHz	10.70 to 12.75 GHz
	IF (MHz)	950 - 3000 MHz	950 - 2750 MHz	290 - 2340 MHz
	Input connector	SMA-female 50Ω		
	DC Input	+15 to +24 V nom. supplied through output connector		
	Current drain	160 mA @ +20 V 180 mA @ +18 V 200 mA @ +16 V		
	Input VSWR	1.78:1 typ.		
INTERNAL	MODELS with internal LO ref.	± 10 kHz (-20 to +70°C), ± 15 kHz (-40 to +80°C)		
	MODELS with External 10 MHz ref.	Sinus wave, input level -10 dBm to +10 dBm through output connector. With no ext. 10 MHz ref. present LO shifts -20 ppm.		
	LO Leakage	-60 dBm max. @ RF input		
	Gain	By request, 10 to 60 dB in 5 dB steps (factory programmable)		
	Flatness	± 0.4 dB max. within 30 MHz, ± 3 dB max. over full band		
	Noise figure	2.0 dB / 170 K @ 60 dB gain configuration, increasing to appr. 20 dB / 28710 K @ 10 dB gain configuration		
	Phase Noise	10 Hz -35dBc/Hz • 100 Hz -65dBc/Hz • 1 kHz -82dBc/Hz • 10 kHz -94dBc/Hz • 100kHz -98dBc/Hz • ≥1MHz -120dBc/Hz (typ.)		
	Image Rejection	40 dB min.		
	Group delay	± 1ns max.		
OUTPUT	Output P1dB	+15 dBm typ. (+10 dBm @ 10-30 dB gain)		
	Output IP3	+25 dBm typ.(+20 dBm @ 10-30 dB gain)		
	Output VSWR	2.1:1 max.		
	Output Connector	N-female 50Ω or SMA-female 50Ω		
GENERAL	Dimensions	166 x 80 x 46 mm (N-connector)		
	Weight	339 g (SMA-connector), 355 g (N-connector)		
	Temperature range	Storage and operating: -40 to +80°C, -40 to +176°F		
	MTBF	MTBF as per MIL-HDBK-217F Notice 2: Environmental Condition GF (Ground Fixed): >489000 hours, Environmental Condition AIC (Airborne, Inhabited, Cargo): >245000 hours, Quality level: Commercial, Temp used for MTBF calculation: +35 C Ambient		
OPTIONS		- Separate SMA connector for DC input or Ext. 10 MHz reference - Custom LO, lower gain and variation - Low profile to fit 1U		

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Rev. 2401

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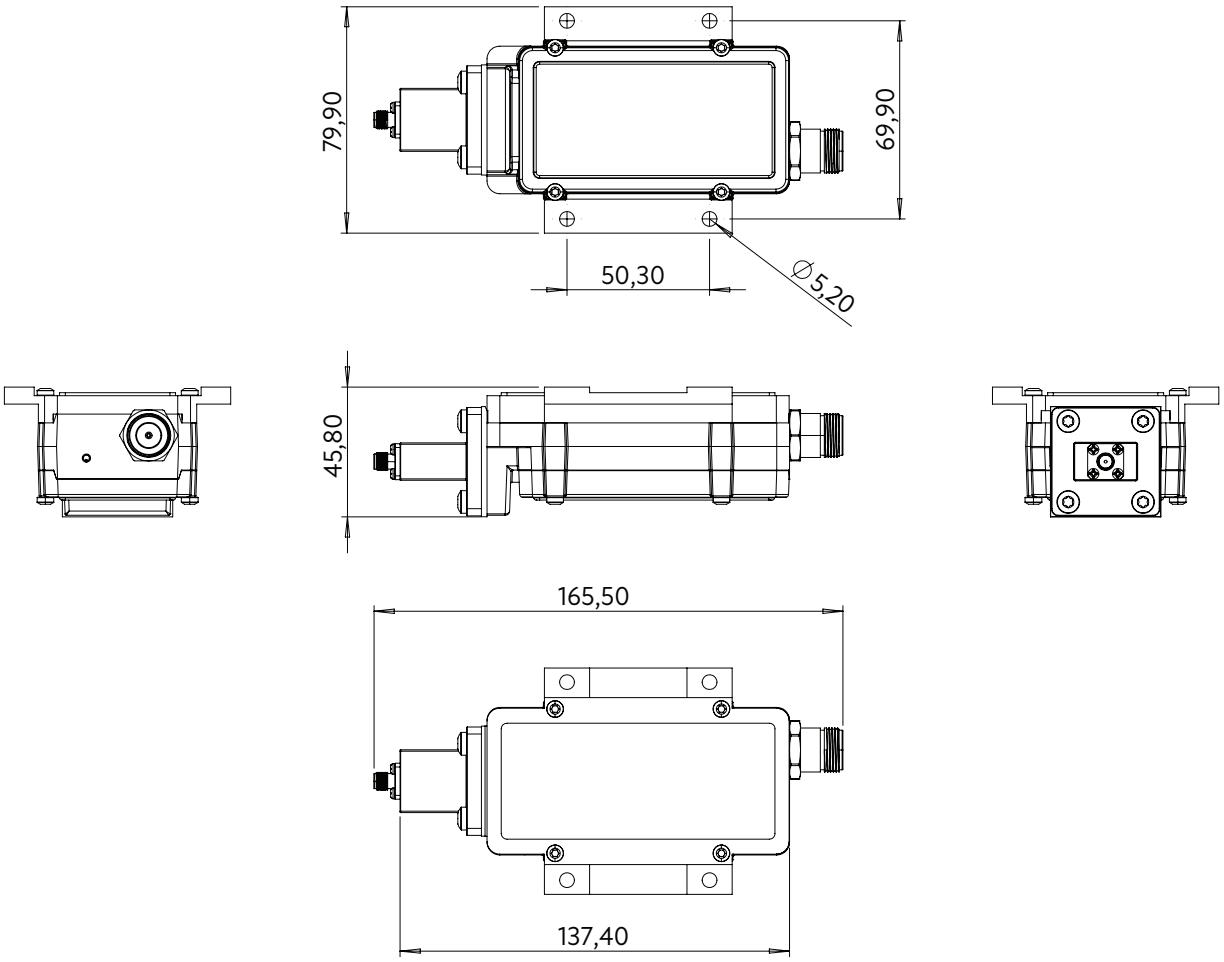
Technical Drawing



Designed and Manufactured IN SWEDEN

Professional Satcom Frequency Converters & Components. All products are fully CE and RoHS complient and every unit includes full documentation of performance tests and quality control. Please contact sales@smw.se to configure or customize the unit to your needs. Visit smw.se or scan QR code to see our full product range and request a quote.

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